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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/559,404

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Guy M. Besson

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08/04/2009

Cooper & Dunham, LLP  
30 Rockefeller Plaza  
20th Floor  
New York, NY 10112

EXAMINER

NGUYEN, HIEN NGOC

ART UNIT

PAPER NUMBER

3768

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/559,404	<b>Applicant(s)</b> BESSON ET AL.	
	<b>Examiner</b> HIEN NGUYEN	<b>Art Unit</b> 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 29-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 29-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/05/2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Applicant's cancellation of claims 2-28 and amended claims 1, 29-37 filed 05/04/2009 is acknowledged and has been entered.

#### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 29-37 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 29-33 and 36-50 of copending Application No. 11/042823. Although the conflicting claims are not identical, they are not patentably distinct from each other because application No. 11/042823 claim a method that is being perform by the system in this application. For example claim 43 of application No. 11/042823 43 claim a method in which the

Art Unit: 3768

acquiring of the ultrasound image data comprises sending ultrasound signals from one side of the breast and receiving ultrasound signal at an opposite side of the breast. This application claim 30 claim an ultrasound system includes at least two ultrasound transducers that are at opposite side of the breast. It would have been obvious to one of ordinary skill in the art at the time of the invention that the ultrasound system in this application is used to send and receive ultrasound signal at the opposite side of the breast because in order to perform the method of send and receive ultrasound signals at opposite side of the breast there has to be at least two ultrasound probes on opposite side of the breast.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 29 and 31-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Nields et al. (U.S. 6,102,866).

Nields discloses:

- a breast immobilizing device; (see abstract, col. 3, lines 25-40 and col. 5, lines 44-52).

- an x-ray source producing a beam of x-rays that selectively rotates about a selected pivot axis, the beam irradiating a patient's breast positioned in the immobilizing device, the irradiating being along a multiplicity of different directions of the beam relative to the breast and taking, place while the breast remains immobilized; (see col. 5, lines 44-52).
- an imager detecting x-rays within the beam that have passed through the patient's breast to generate x-ray image, data describing a multiplicity of initial x-ray images related to multiplicity of directions along which the x-ray beam irradiates the breast; (see col.5, lines 44-52 and lines 35-40).
- an ultrasound system acquiring ultrasound image data describing a multiplicity of initial ultrasound images of the breast; (see Fig.1, element 100 is the ultrasound system for acquiring ultrasound images).
- a processing system processing the x-ray image data and the ultrasound image data and producing, at least one processed x-ray image of the breast suitable for display and at least one processed ultrasound image suitable for display; (see claims 5 and 6). The processor is processing x-ray and ultrasound image of the breast for display.
- a display system concurrently displaying the processed x-ray image and the processed ultrasound image; (see Fig. 6, elements 62a for x-ray and 62b for ultrasound, element 60 is the display).
- the ultrasound system includes at least one ultrasound transducer that both emits and receives ultrasound signals and is at one side of the

breast; (see col. 3, lines 30-36 and Fig. 1, element 100). It is inherent that the transducer both emits and receives ultrasound signals in order to form an ultrasound image.

- pivot axis is at a focal spot from which the x-ray beam emanates; (see col. 5, lines 44-52).
- x-ray image is a projection image; (see col. 2, lines 1-5).
- concurrently displayed processed x-ray and ultrasound images are at different orientations relative to the breast; (see Fig. 6, elements 62a for x-ray and 62b for ultrasound, element 60 is the display and col. 8, lines 17-42).
- the image detector and ultrasound system are located in the same housing; (see col. 3, lines 25-40, col. 9, lines 15-20 and Fig. 5). The ultrasound head cover by the housing transmit and receive (detect) ultrasound signals to form an ultrasound images therefore the image detector of the ultrasound must be located in the same housing. Examiner interpret image detector as the signal receiving portion of the ultrasound system.
- the image detector and ultrasound system are selectably connectable; (see col. 3, lines 25-40 and Fig. 5). The image detect is within the ultrasound head therefore it must be connected to the ultrasound system.

Art Unit: 3768

- a rotating x-ray source and a detector positioned to receive x-rays from the rotating source during an x-ray scan of the patient's breast; (see col. 5, lines 44-52 and col. 6, lines 13-42).
- a driving mechanism, coupled to both the x-ray imaging system and the ultrasound imaging system for controlling movement of the x-ray imaging system and the ultrasound imaging system during x-ray image and ultrasound image acquisition; it is inherent that the system has a driving mechanism because the system is rotating and the driving mechanism cause this rotation.
- the x-ray imaging system movement is synchronized with the ultrasound system movement during x-ray and ultrasound image acquisition; Nields's system is capable of having x-ray imaging system and ultrasound system move in synchronous to acquire image.

3. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nields et al. (U.S. 6,102,866).

Nields discloses:

- ultrasound system includes at least two ultrasound transducers that are at opposite sides of the breast; (see col. 11, lines 1-5). Nields discloses plurality of transducers. The system is capable of placing transducers at opposite sides of the breast. It would have been obvious to one of ordinary skill in the art at the time of the invention to place at least two ultrasound

transducers at opposite sides of the breast because the location of receiving the ultrasound data from the breast tissue relies on the position at which the receiving transducer of the ultrasound system is located.

### ***Response to Arguments***

Applicant amended claim 1, cancel claims 2-28 and substituted new claims 28-37. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to HIEN NGUYEN whose telephone number is (571)270-7031. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. N./  
Examiner, Art Unit 3768

/Long V Le/  
Supervisory Patent Examiner, Art Unit 3768